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Figure 1b: Correct attachment of tubing

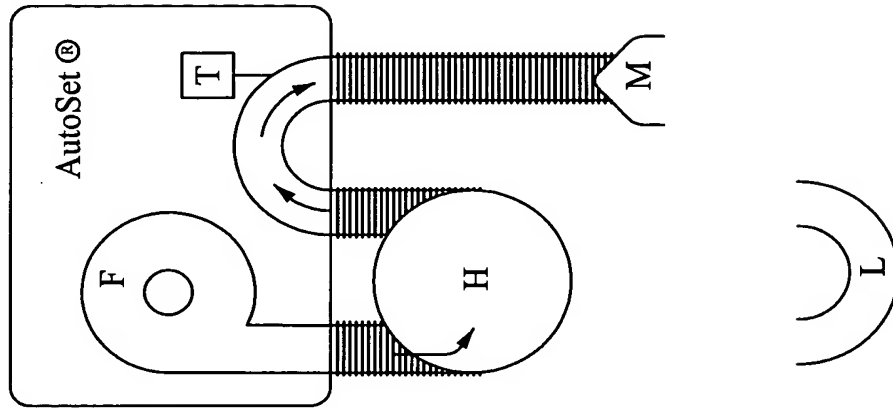
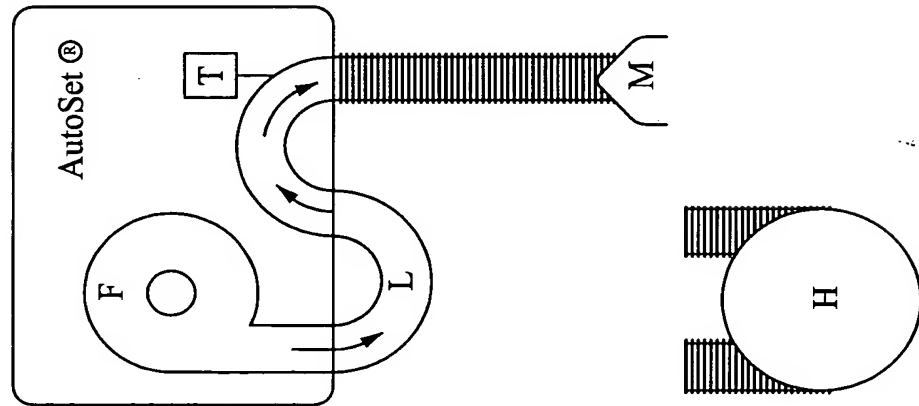


Figure 1a: Correct attachment of tubing



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Figure 1d: *Incorrect attachment of tubing*

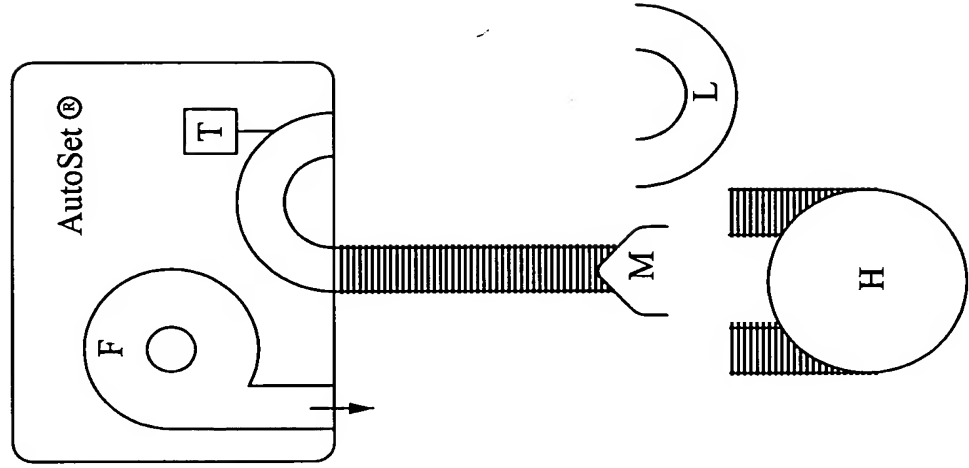
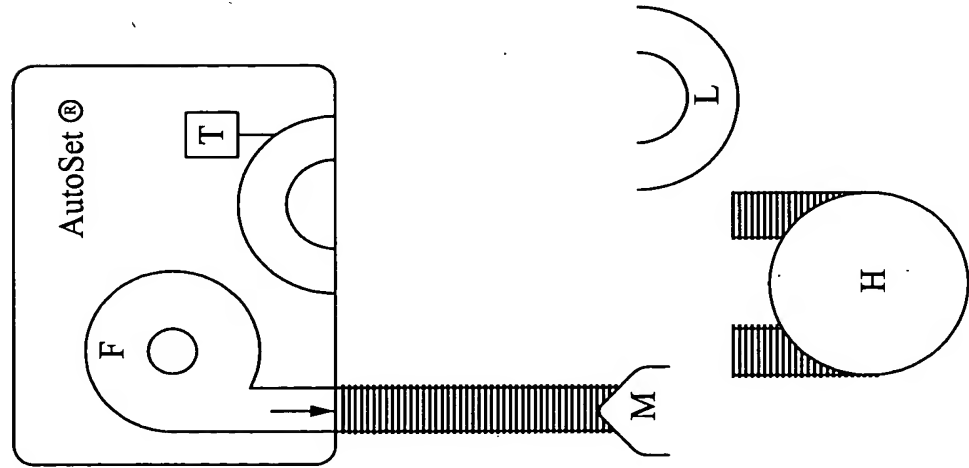


Figure 1c: *Incorrect attachment of tubing*



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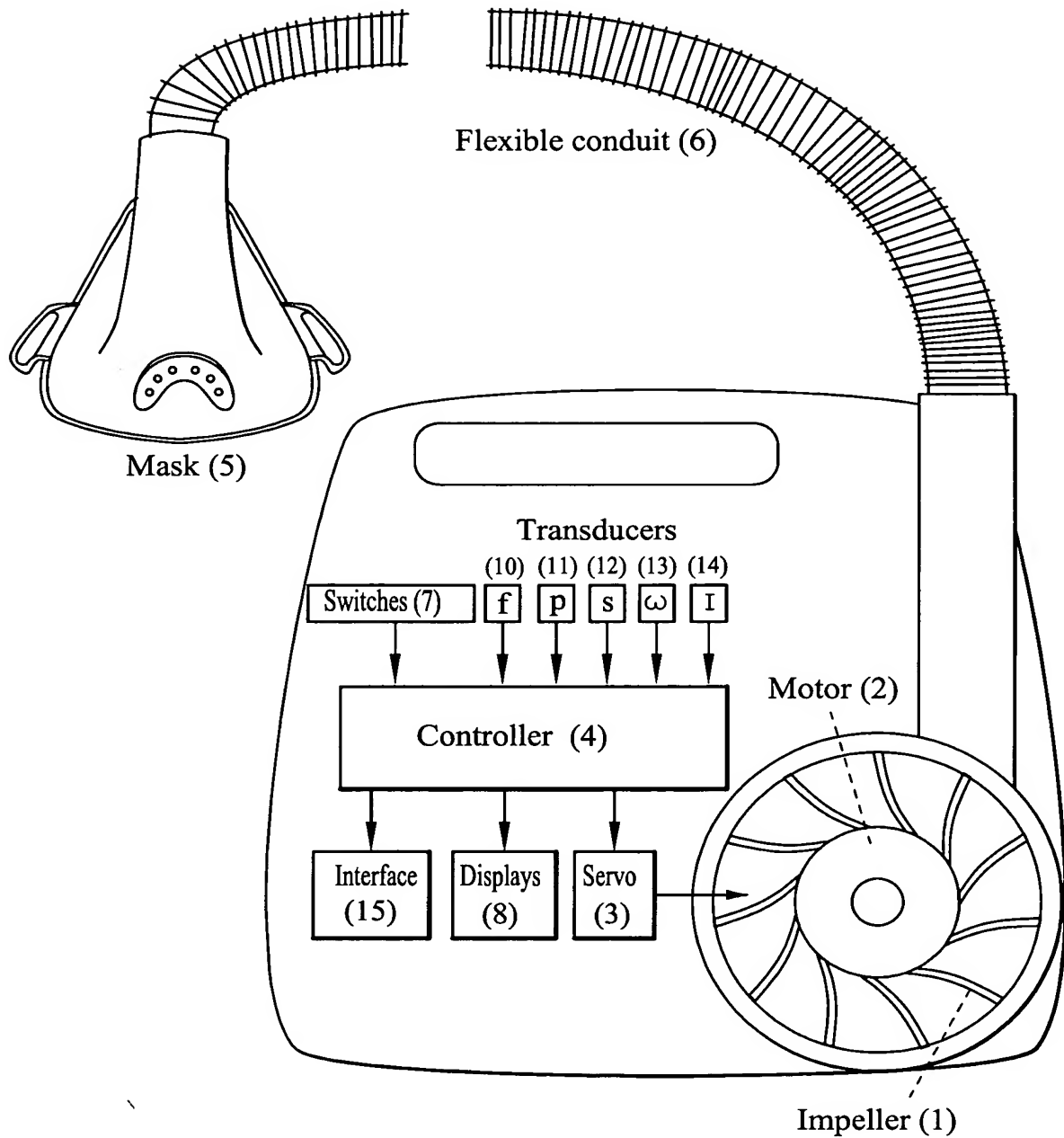


Figure 2: *CPAP apparatus*

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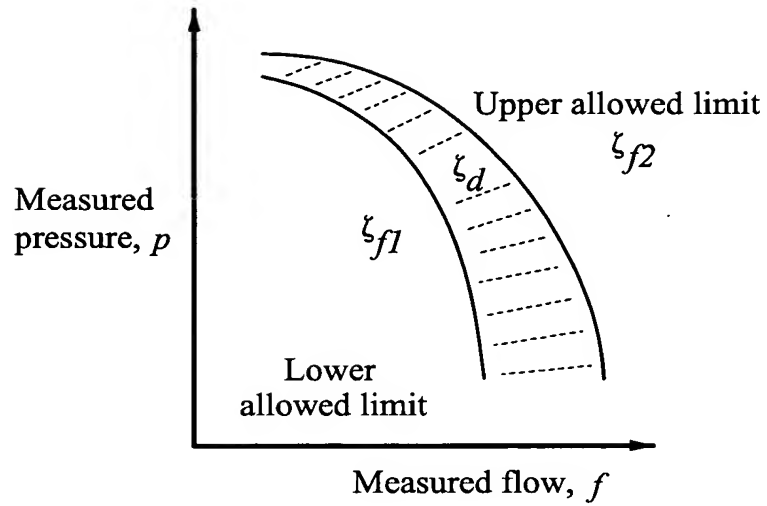


Figure 3a: *High motor speed (ω) operation*

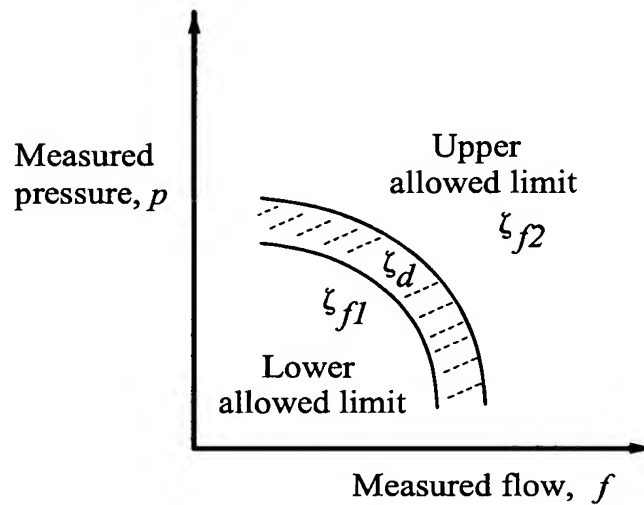


Figure 3b: *Low motor speed (ω) operation*

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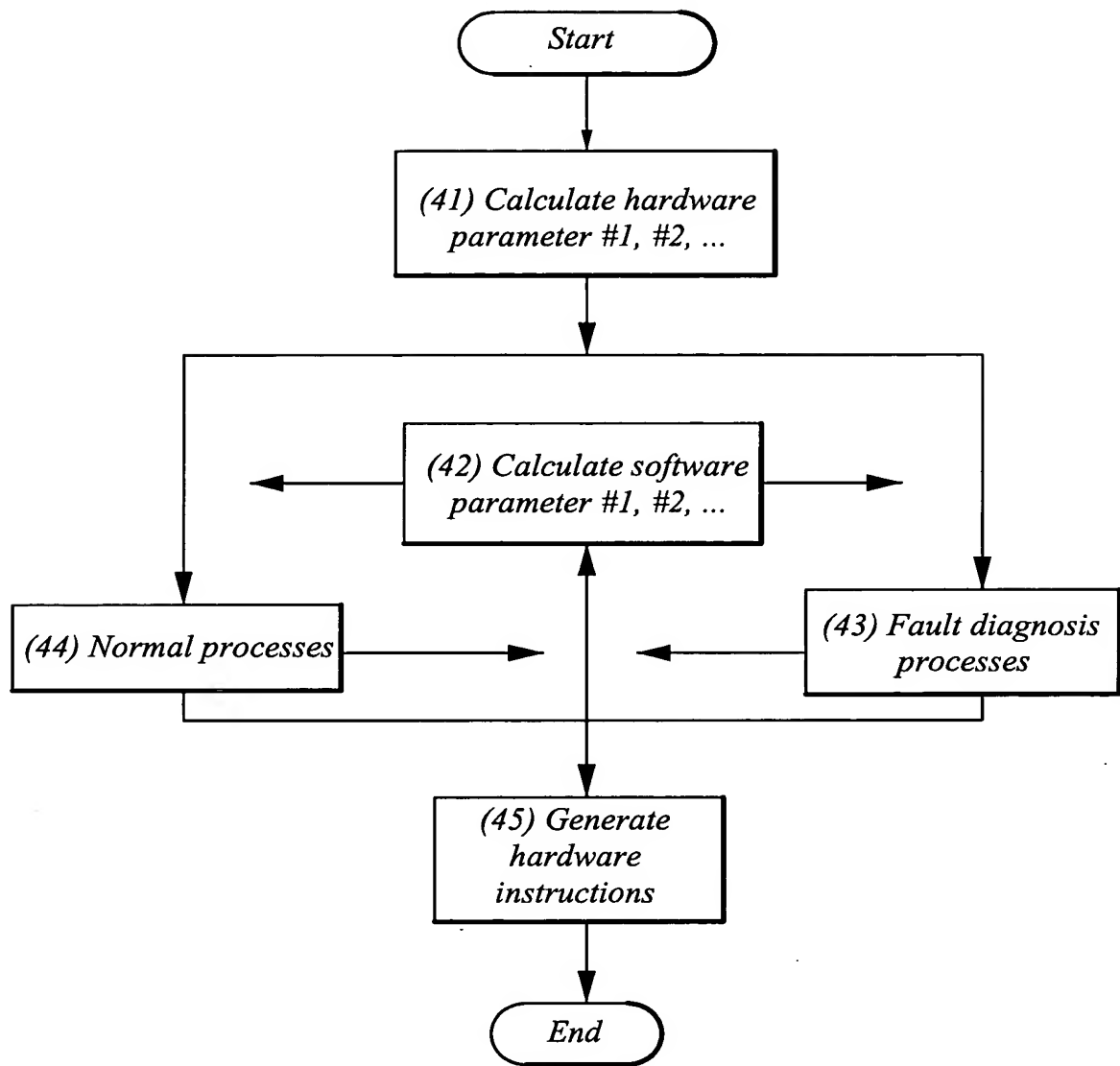


Figure 4: *Fault diagnosis implemented in overall software processes*

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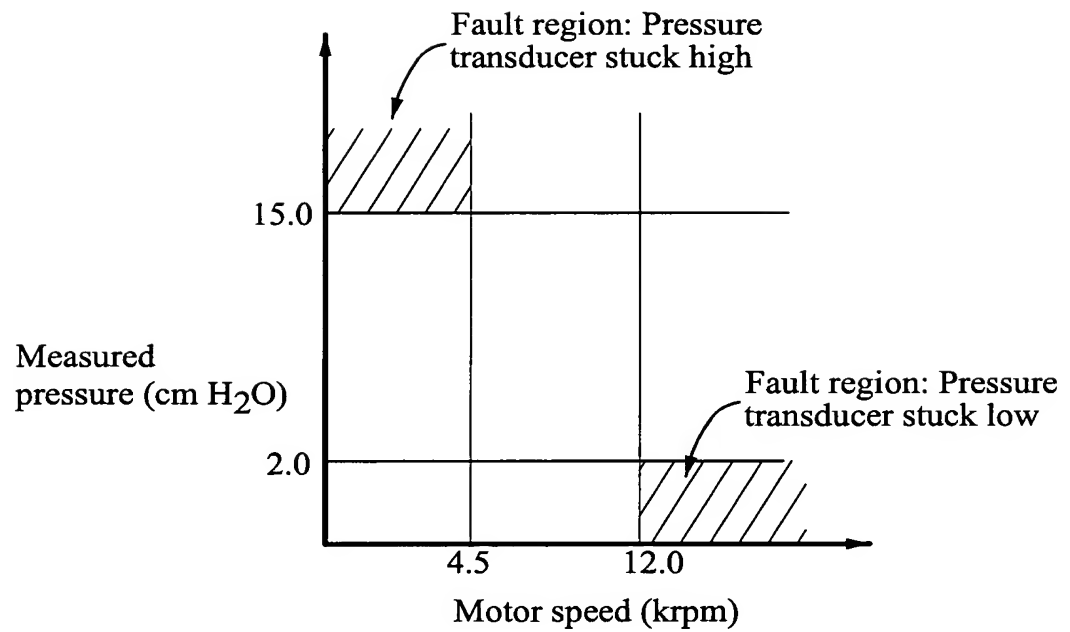


Figure 5: *Pressure transducer fault regions*

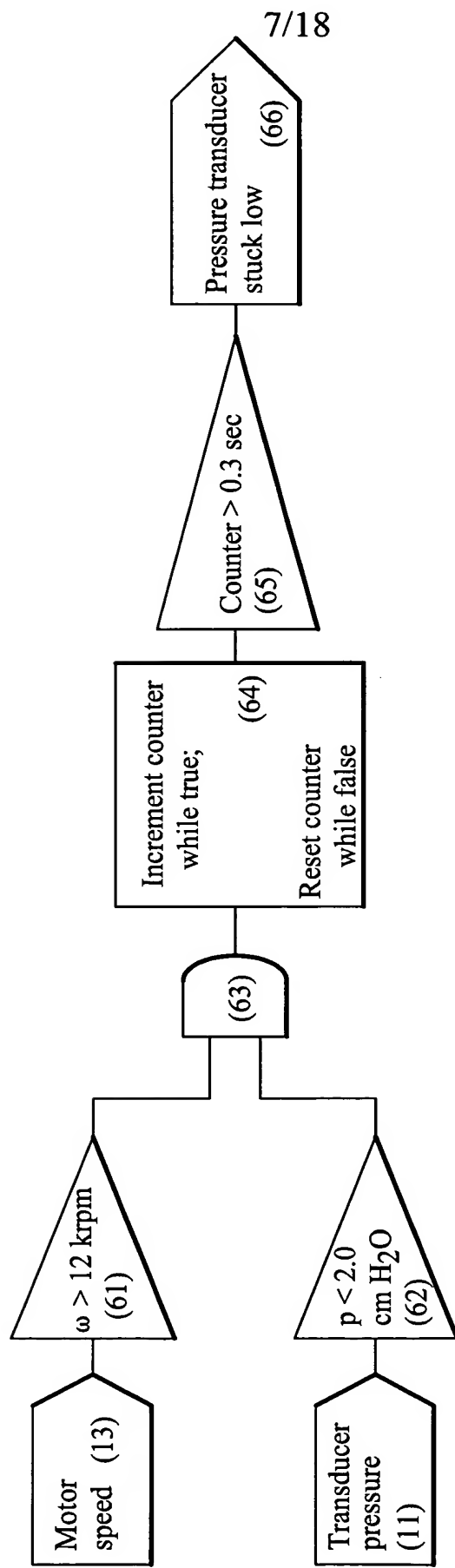


Figure 6: Detect Pressure Transducer Stuck Low

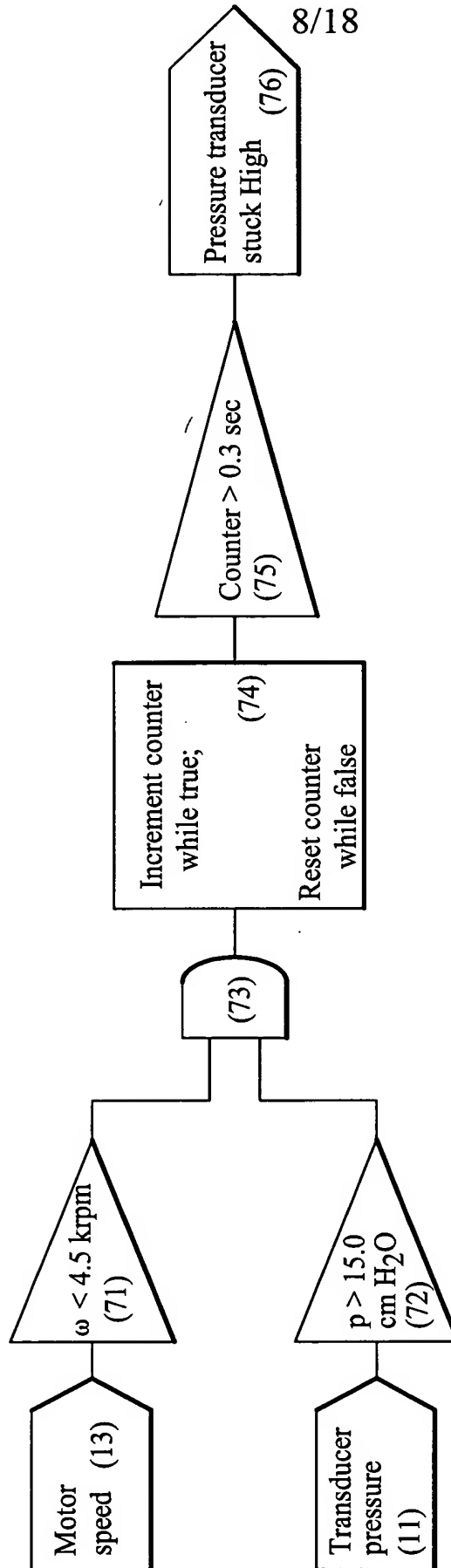


Figure 7: Detect Pressure Transducer Stuck High

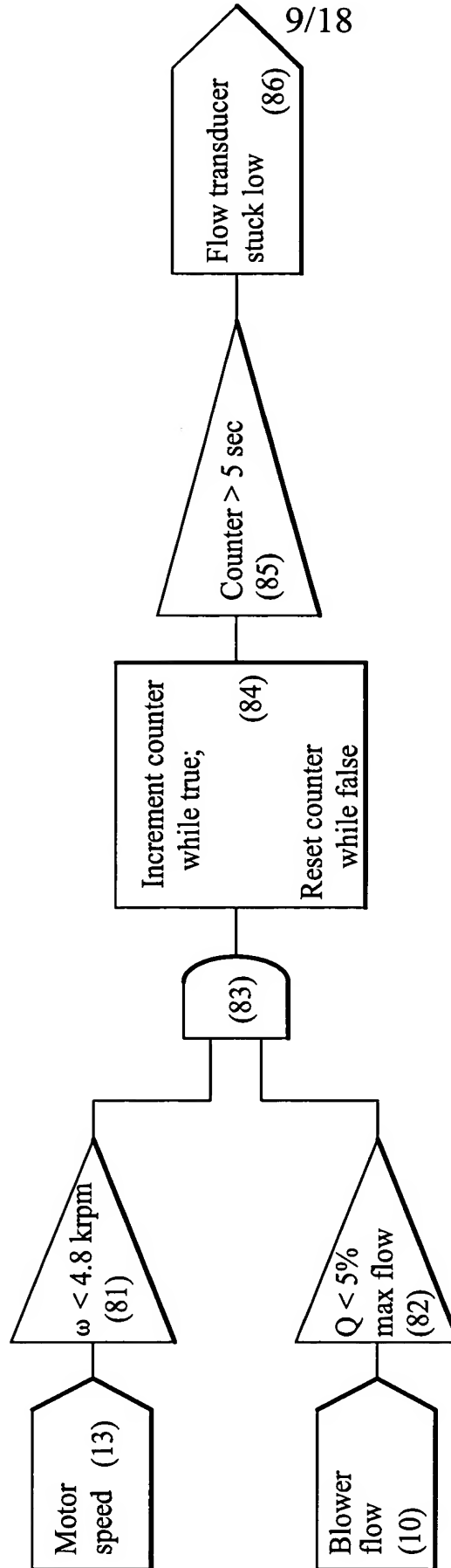


Figure 8: Detect Flow Transducer Stuck Low

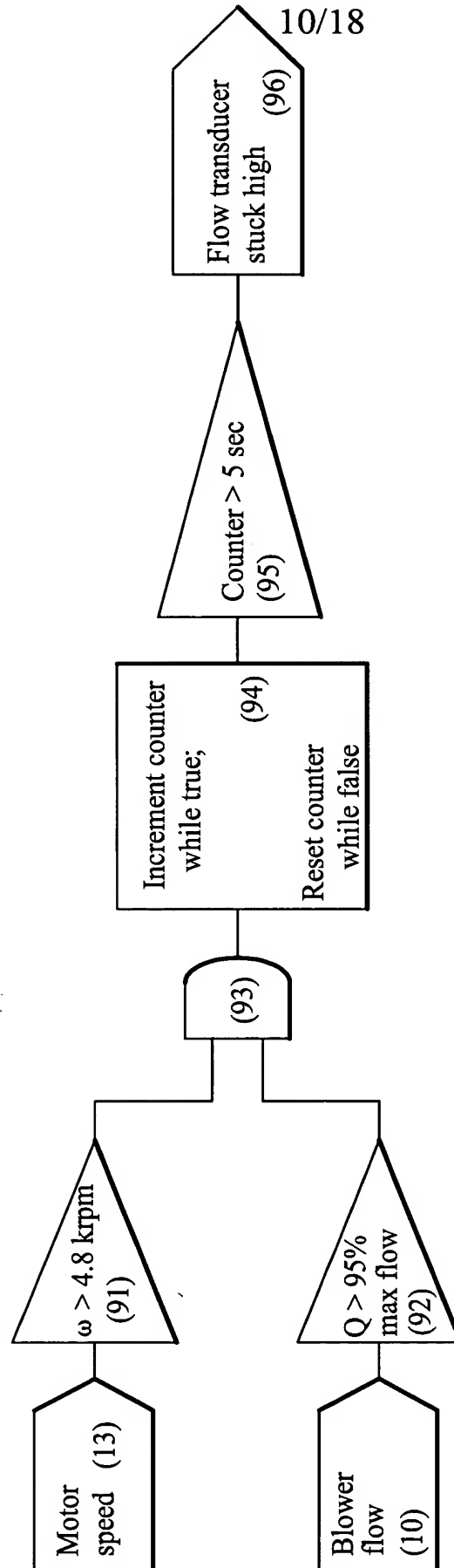
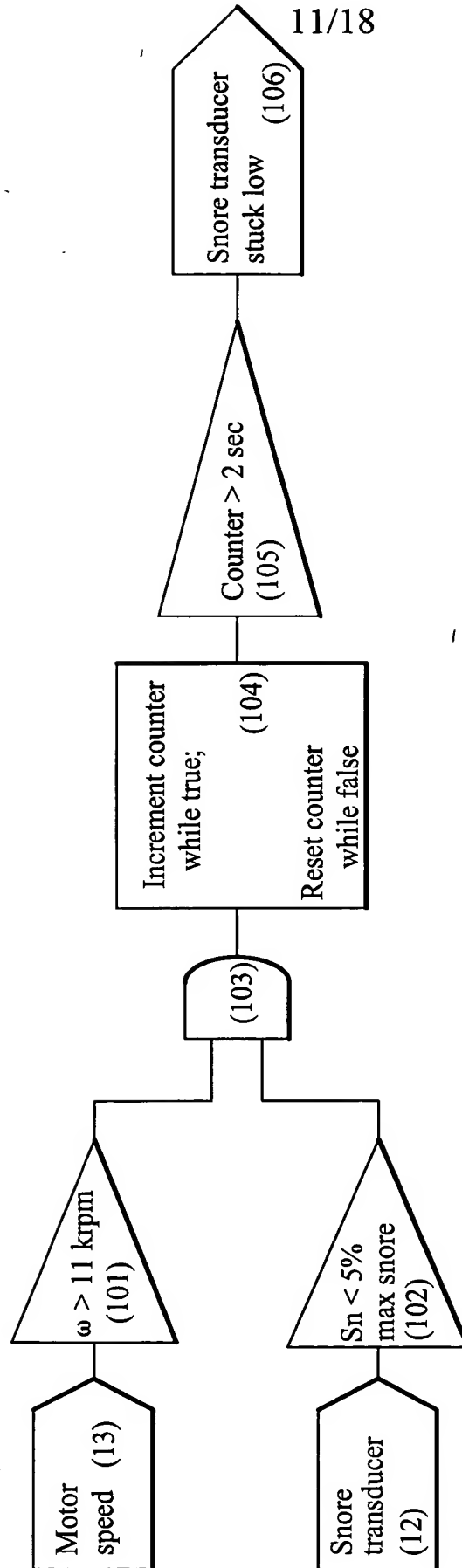


Figure 9: Detect Flow Transducer Stuck High



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Figure 10: Detect Snore Transducer Stuck Low

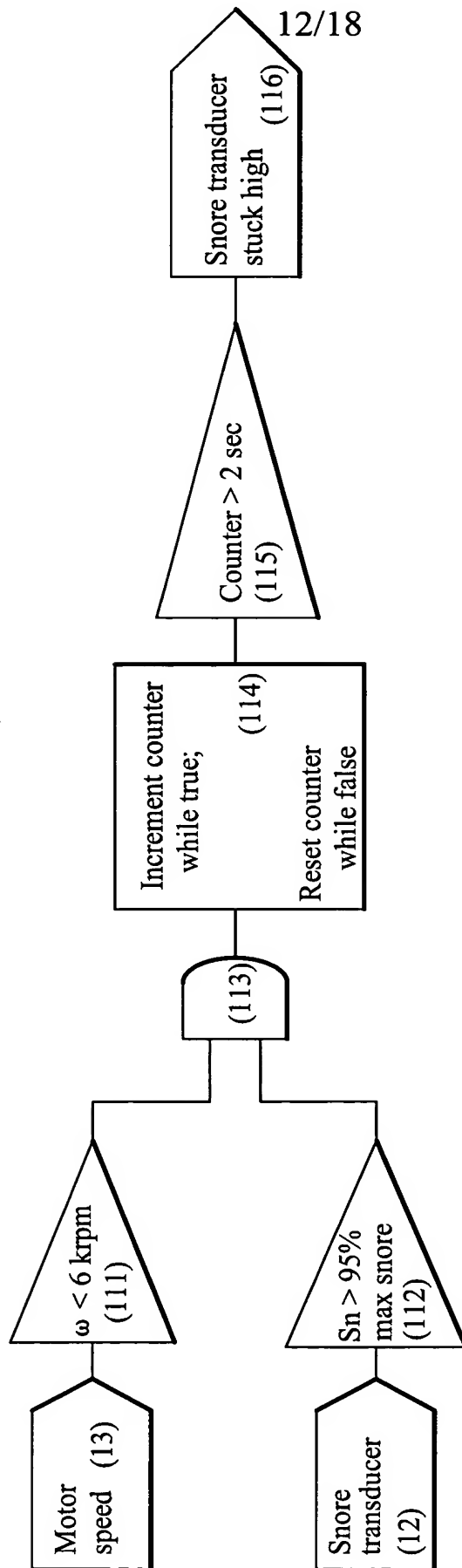


Figure 11: Detect Snore Transducer Stuck High

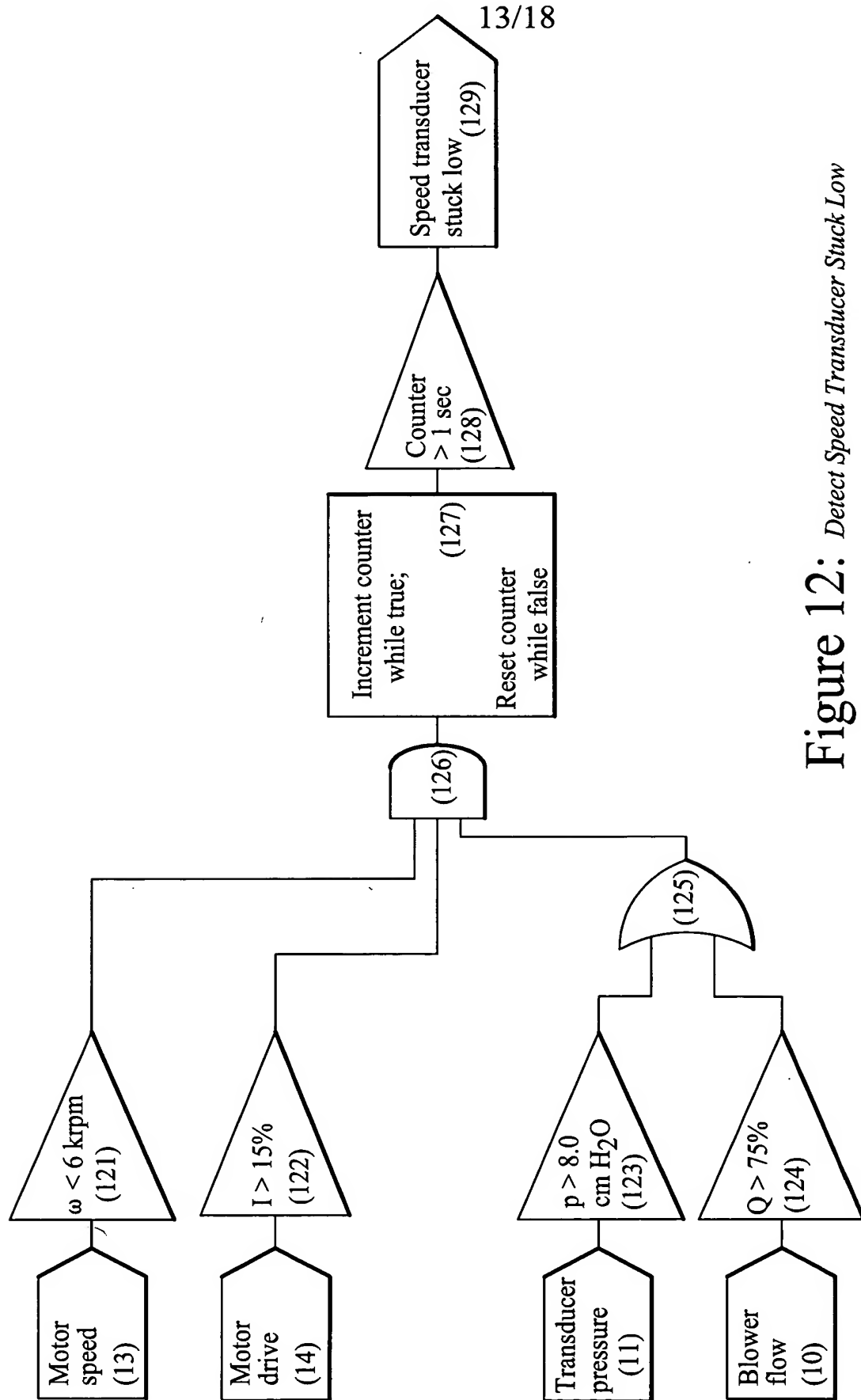


Figure 12: Detect Speed Transducer Stuck Low

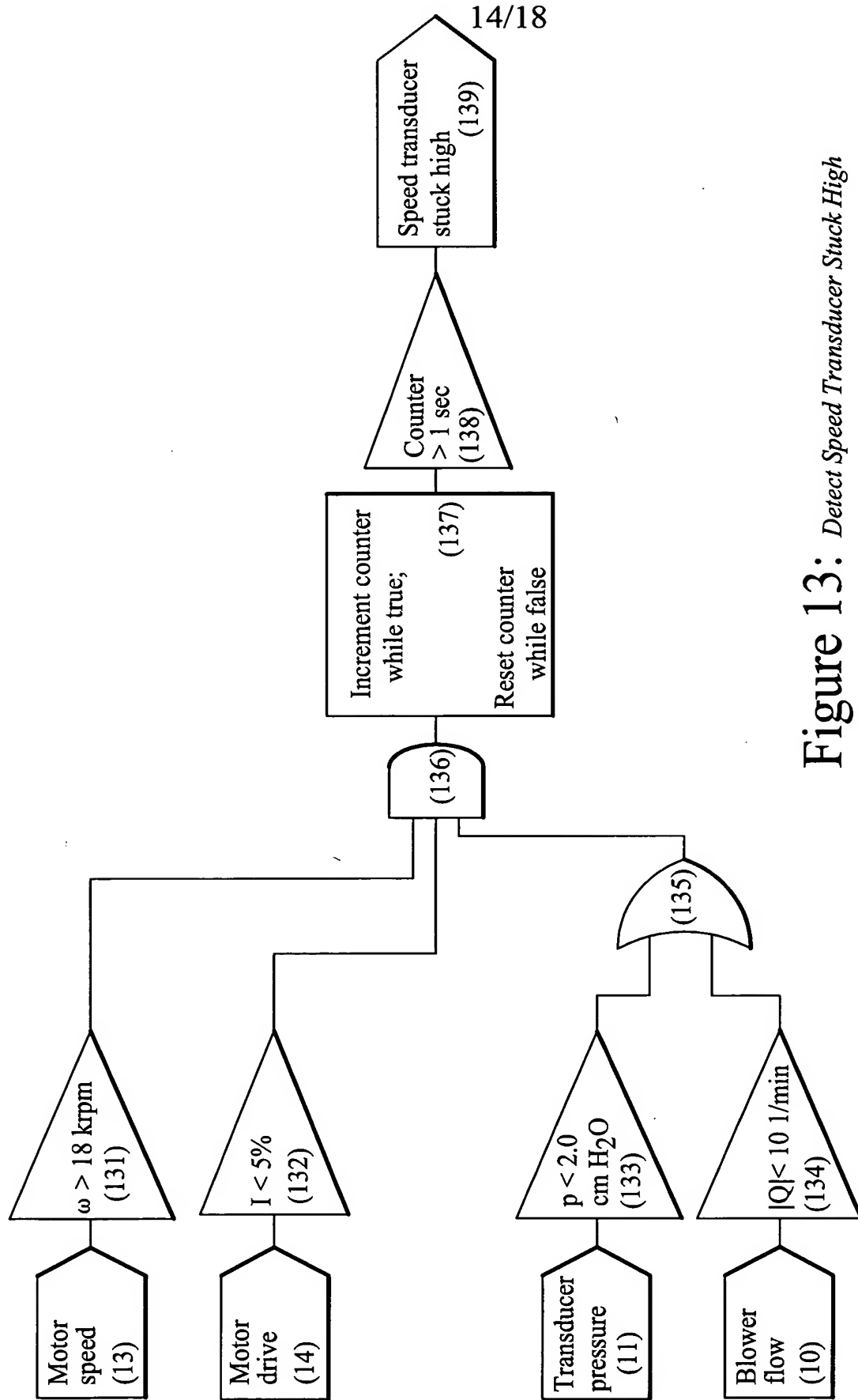
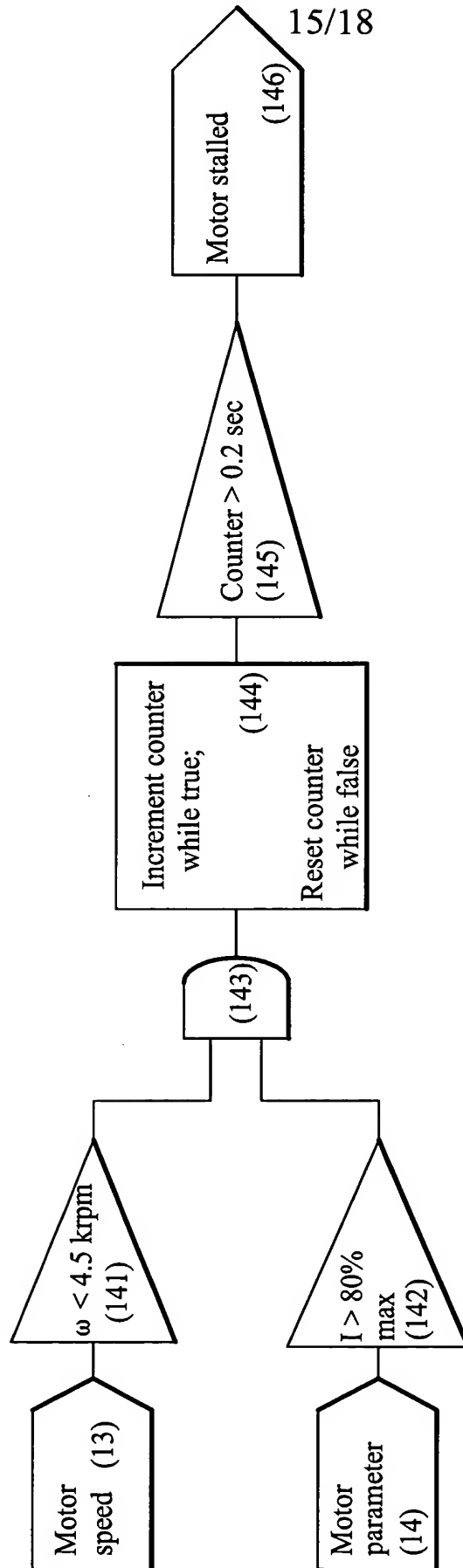


Figure 13: Detect Speed Transducer Stuck High



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Figure 14: Detect Stalled Motor

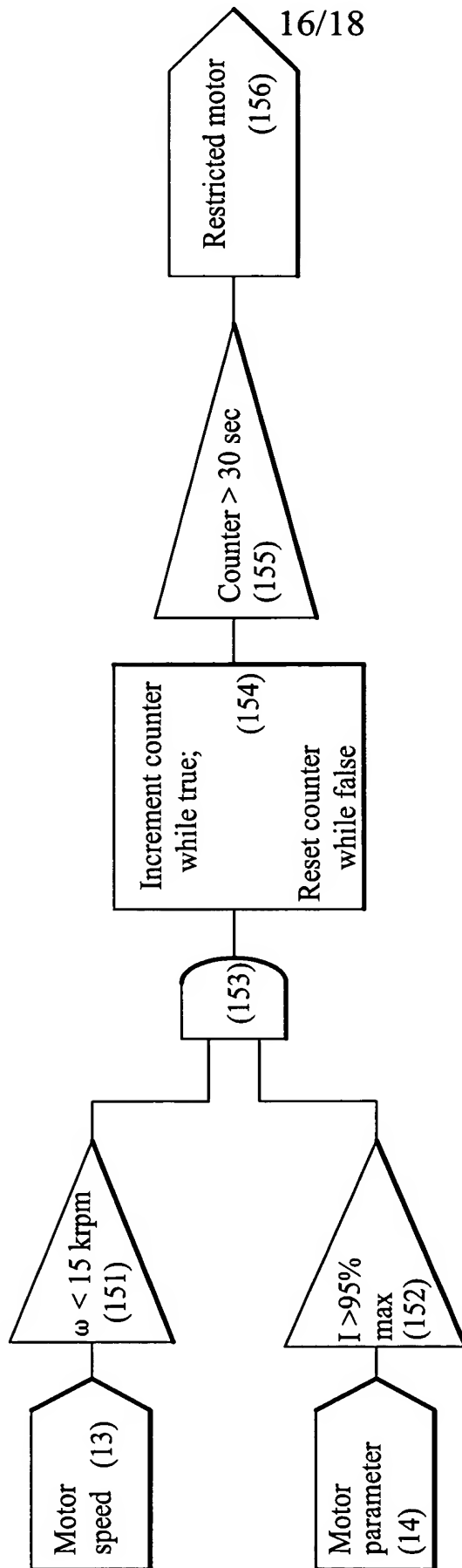


Figure 15: Detect Restricted Motor

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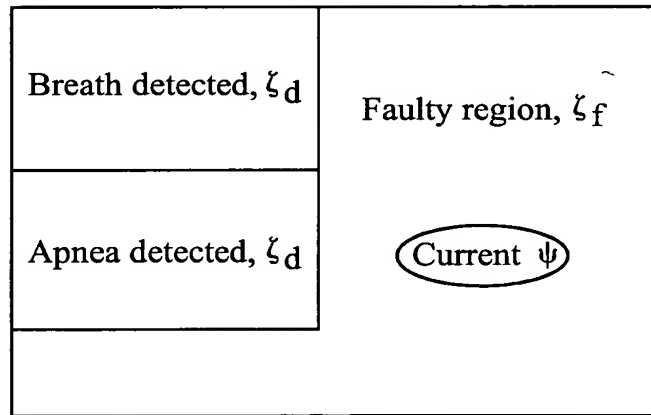


Figure 16: *Software fault*

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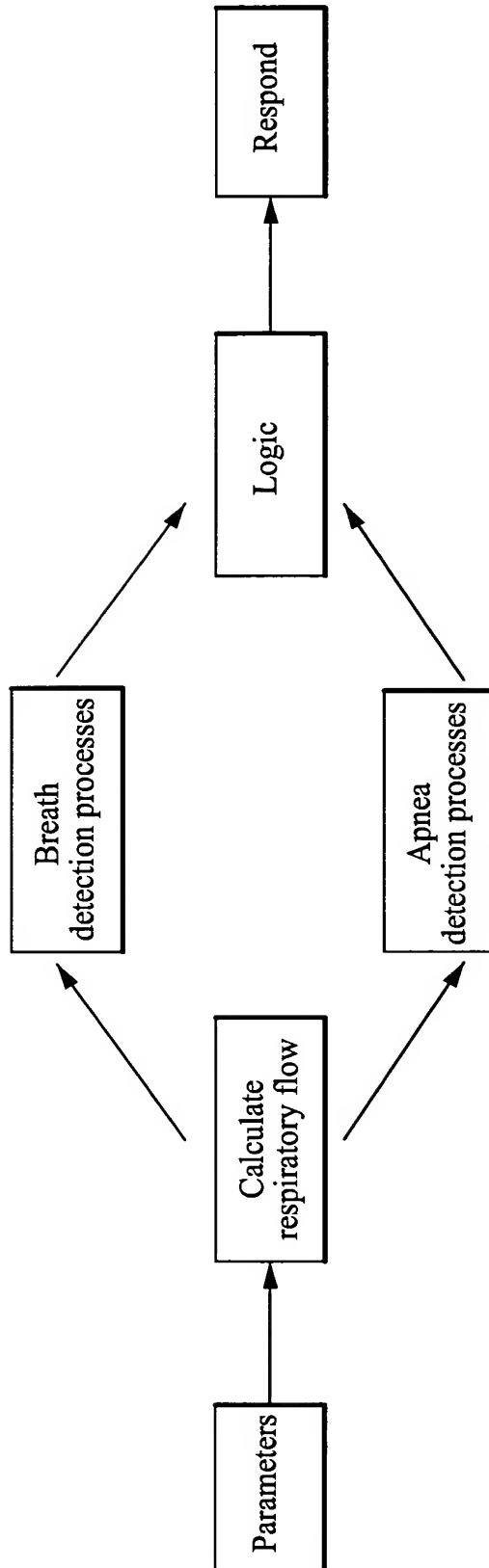


Figure 17: Software fault detection processes